

IPMC-111PB++-60W



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➔ **Industrial mini type Ethernet to fiber High power PoE++ media converter with 1x10/100Base-T(X) P.S.E. and 1x100Base-FX, SFP socket**

Features

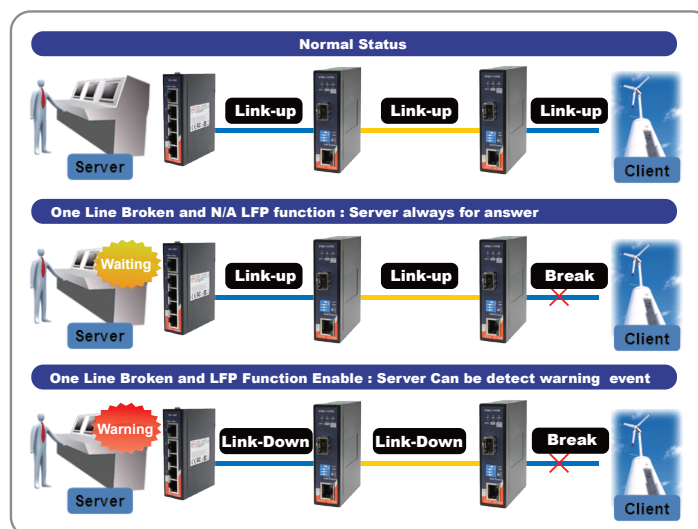
- Supports 1 port 10/100Base-T(X) P.S.E. auto-negotiation and auto-MDI/MDI-X
- Support Ethernet to fiber or Ethernet to SFP port
- Support **LFP (Link Fault Pass-through)** function
- Supports full/half duplex operation
- **P.S.E.** fully compliant with IEEE802.3at standard, provide up to **60Watts**
- Supports store and forward transmission
- Provided DIP-Switch to setting function and PoE mode selectable
- High reliability and rigid IP-30 housing
- DIN-Rail and wall mounting enabled



Introduction

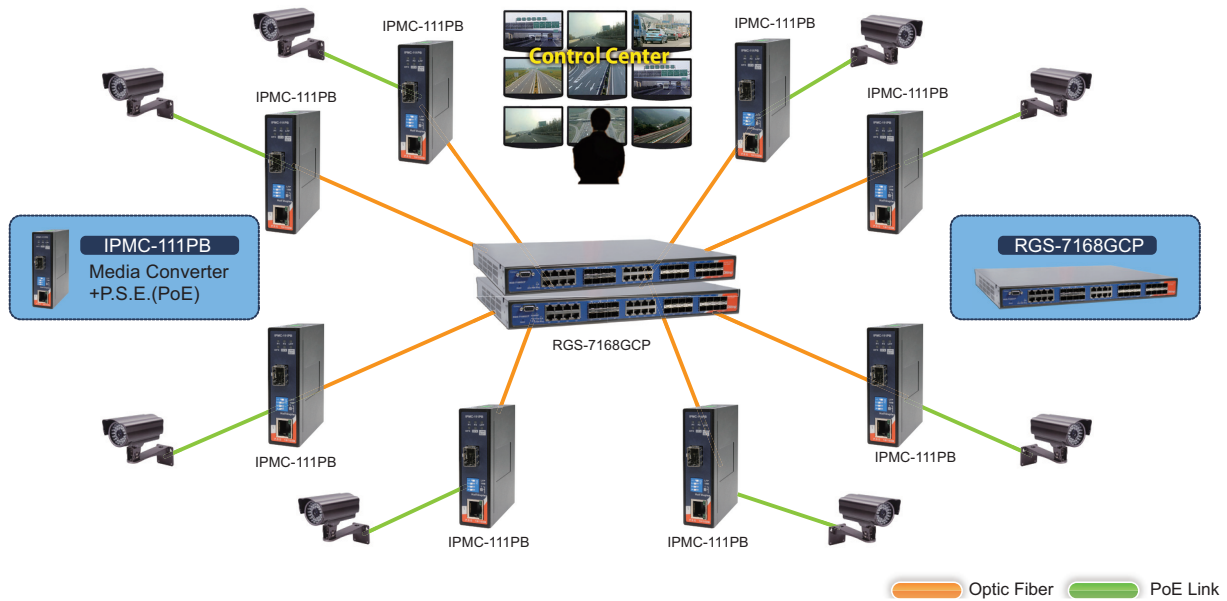
IPMC-111PB++-60W is a cost-effective solution for the conversion interface between 10/100Base-T(X) and 100Base-FX, it allows you to extend communication distance by optical fiber. IPMC-111PB++-60W supports MDI/MDIX auto detection, so you don't need to use crossover wires. IPMC-111PB++-60W also support Power over Ethernet, a system to transmit electrical power up to **60 watts**, along with data, to remote devices over standard 4-pair cable in an Ethernet network. Each IPMC-111PB++-60W has 1x10/100Base-T(X) P.S.E. (Power Sourcing Equipment) port to provide power in a PoE setup. IPMC-111PB with wide operating temperature range from -40 ~ 75°C and accepts a wide voltage range from dual 50~57 VDC power inputs, so it is suitable for harsh operating environments.

IPMC-111PB++-60W also supports the **LFP (Link Fault Pass-through)** feature. When one side of the link fails, the other side continues transmitting packets, and waiting for a response that never arrives from the disconnected side. Use the DIP-Switch to enable the LFP function, then IPMC-111PB++-60W will force the link to shutdown as soon as noticed that the other link has failed, to notice the administrator to react to the situation. Therefore, the IPMC-111PB++-60W is reliable media converter with PoE capability and can satisfy most demand of operating environment.

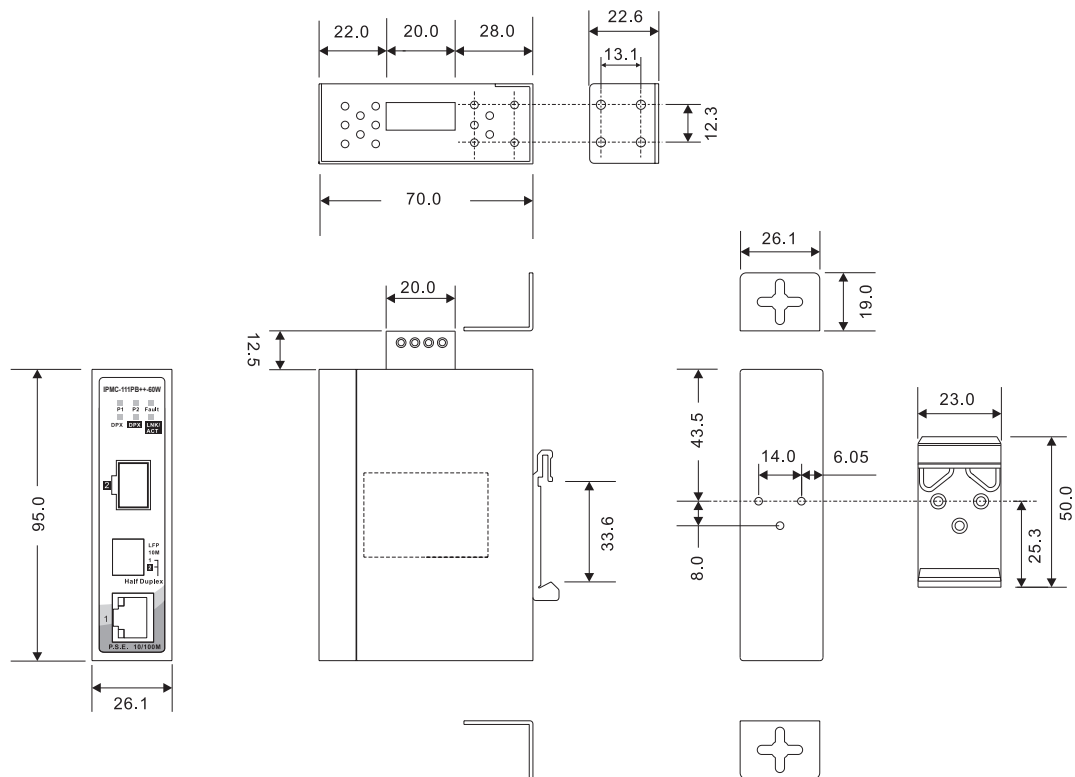


Connections of the LFP function

Practical Operation



Dimensions



Connector and Pin Definition

10/100 Base-T(X)

| Pin | RJ-45 Output (Data and Power) | |
|-----|-------------------------------|------------------------------------|
| | Symbol | Description |
| 1 | Rx+ (Vdc1+) | Data Receive and Feeding power(+) |
| 2 | Rx- (Vdc1+) | Data Receive and Feeding power(+) |
| 3 | Tx+ (Vdc1-) | Data Transmit and Feeding power(-) |
| 4 | NC (Vdc2+) | Not Connected and Feeding power(+) |
| 5 | NC (Vdc2+) | Not Connected and Feeding power(+) |
| 6 | Tx- (Vdc1-) | Data Transmit and Feeding power(-) |
| 7 | NC (Vdc2-) | Not Connected Feeding power(-) |
| 8 | NC (Vdc2-) | Not Connected Feeding power(-) |

Note: pins 3/6/7/8 (-Vdc) should not be shorted to ground

Specifications

| ORing Media Converter Model | IPMC-111PB++-60W |
|---|---|
| Physical Ports | |
| 10/100 Base-T(X) with P.S.E. Port in RJ45 Auto MDI/MDIX | 1 |
| 100/1000Base-X SFP port | 1 |
| Technology | |
| Ethernet Standards | IEEE 802.3 for 10Base-T IEEE 802.3u for 100Base-TX and 100Base-FX IEEE 802.3x for Flow control IEEE 802.3at PoE specification |
| Processing | Store-and-Forward |
| LED indicators | |
| Power indicator | Green : Power LED x 2 (ON : power input on-line / (OFF) power input off-line |
| 10/100Base-T(X) RJ45 port indicator | Green for port Link/Act – (ON) Link up / (Blinking) Acting / (OFF) 10Mbps or Link down Green for port duplex indicator – (ON) Full-Duplex / (OFF) Half-Duplex |
| 100Base-FX fiber port indicator | Green for fiber port Link/Act – (ON) Link up / (Flash) Acting / (OFF) Link down Green for fiber port duplex indicator – (ON) Full-Duplex / (OFF) Half-Duplex |
| LFP state indicator | Amber LED – (ON) LFP function happen / (OFF) LFP function disable |
| PoE indicator | Green for P.S.E. indicator |
| DIP Switch for function | |
| DIP-Switch setting | DIP-Switch 1 for LFP mode selection : (ON) enable / (OFF) disable DIP-Switch 2 for Ethernet speed selection : (ON) 10Mbps / (OFF) 10/100Mbps Auto-negotiate DIP-Switch 3 for Ethernet full/half duplex selection : (ON) Half-duplex / (OFF) Full/Half-Duplex Auto-negotiate DIP-Switch 4 for fiber full/half duplex selection : (ON) Half-Duplex / (OFF) Full-Duplex |
| DIP Switch for PoE mode | |
| DIP Switch 1/2 | DIP Switch 1/2 (OFF): PoE P.S.E set to master and Asynchronize mode. (default) DIP Switch 1/2 (ON) : PoE P.S.E set to synchronize mode |
| Power | |
| Input power | Dual 50~57 VDC voltage power inputs at 4-pin terminal block |
| Power consumption (Typ.) | 3 Watts (Not include PD's device) |
| Short circuit protection | Present |
| Reverse polarity protection | Present |
| Physical Characteristic | |
| Enclosure | IP-30 |
| Dimension (W x D x H) | 26.1 (W) x 70 (D) x 95 (H)mm (1.03 x 2.76 x 3.74 inch) |

| | |
|-----------------------------|--|
| Weight (g) | 228g |
| Environmental | |
| Storage Temperature | -40 to 85°C (-40 to 185°F) |
| Operating Temperature | -40 to 75°C (-40 to 158°F) |
| Operating Humidity | 5% to 95% Non-condensing |
| Regulatory approvals | |
| EMC | EN55032 EN55024 |
| EMI | FCC Part 15B Class A CISPR 22 class A |
| EMS | EN61000-4-2 (ESD), EN61000-4-3 (RS), EN61000-4-4 (EFT), EN61000-4-5 (Surge), EN61000-4-6 (CS), EN61000-4-8, EN61000-4-11 |
| Shock | IEC60068-2-27 |
| Free Fall | IEC60068-2-32 |
| Vibration | IEC60068-2-6 |
| Safety | EN60950-1 |
| Warranty | 5 years |

Ordering Information

IPMC-1 **A B C** B++-60W

| Code Definition | 10/100Base-T(X) Port Number | Fiber Port Number | Fiber Port Type |
|-----------------|--------------------------------|---------------------|-----------------------------|
| Option | - 1 : 1 port | - 1 : 1 port | - P : 100Base-FX SFP |

| Available Model | Model Name | Description |
|-----------------|------------------|--|
| | IPMC-111PB++-60W | Industrial mini type Ethernet to fiber High power PoE++ media converter with 1x10/100Base-T(X) P.S.E. and 1x100Base-FX, SFP socket |

Packing List

- IPMC-111PB++-60W x 1
- Wall-Mount Kit x 1
- Quick Installation Guide x 1
- Din-Rail Kit x 1

Optional Accessories (Can be purchased separately)

- SFP100 series : 100Mbps SFP optical transceiver
- DR/SDR/DRP series DIN-Rail power supply